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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,378

04/16/2004

Arja Miettinen-Oinonen

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07/26/2006

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EXAMINER

PATTERSON, CHARLES L JR

ART UNIT

PAPER NUMBER

1652

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,378

Applicant(s)

MIETTINEN-OINONEN ET AL.

Examiner

Charles L. Patterson, Jr.

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-153 is/are pending in the application.
- 4a) Of the above claim(s) 107-109, 120-122, 133-135 and 146-148 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 32, 35, 37-39, 50, 53, 55, 57, 69, 72, 74, 76, 86, 89, 91, 93, 106, 119, 132 and 145 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims rejected are 31,33,34,36,40-49,51,52,54,56,58-68,70,71,73,75,77-85,87,88,90,92,94-105,110-118,123-131,136-144 and 149-153.

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Applicant's election with traverse of Group I, claims 31-106, 110-119, 123-132, 136-145 and 149-153 in the reply filed on 6/14/06 is acknowledged. The traversal is on the ground(s) that examining all groups would not be a serious burden and "a search for the subject matter of Group i would also provide useful information for the subject matter of all other groups". This is not found persuasive because it is maintained that there would be a serious burden upon the examiner to examine all of the groups and that a search for Group I would might "provide useful information" about the other groups, it would not be conclusive. The instant groups were restricted because they are drawn to different cellulase enzymes having different sequences and therefore they are structurally distinct. If nothing else, the search of more than one group would entail more than one sequence search and analysis of the searches. This alone would entail a serious burden.

The requirement is still deemed proper and is therefore made FINAL.

Claims 107-109, 120-122, 133-135 and 146-148 and claims 31-106, 110-119, 123-132, 136-145 and 149-153 not limited to SEQ ID NO:31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/14/06.

Claims 42-44, 60-62, 79-81, 96-98, 102, 110-115, 123-128, 136-141 and 149-153 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 42-44, 60-62, 79-81, 96-98, 102, 110-115, 123-128, 136-141 and 149-153 are confusing in that they recite contain genres other than *Melanocarpus*, which is the genus containing SEQ ID NO:30 and 31.

Claims 44, 62, 81 and 98 are confusing in the recitation of "*Melanocarpus albomyces* or...,...,...or...or". There should only be one "or" in the series.

Claim 101 is apparently incorrect in that applicants refer to claim 83 when they apparently mean claim 85.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 31, 33, 36, 40, 49, 51, 54, 56, 58, 68, 70, 73, 75, 77, 85, 87, 90, 92 and 94 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility.

The instant specification does not teach a utility for a polypeptide 80% identical with SEQ ID NO:31 or 80% identical with residues 22-235 or SEQ ID NO:31. Therefore absent very convincing proof to the contrary it is maintained that there is no specific and substantial utility for these claims.

Claims 31, 33, 36, 40, 49, 51, 54, 56, 58, 68, 70, 73, 75, 77, 85, 87, 90, 92 and 94 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31, 33, 36, 40, 49, 51, 54, 56, 58, 68, 70, 73, 75, 77, 85, 87, 90, 92 and 94 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The instant claims are drawn to methods using enzymes that are 80% identical with SEQ ID NO:31 or residues 22-235 of SEQ ID NO:31. The specification does not teach what the characteristics of sequences 80% identical are but rather what the characteristics of sequences that are 100% identical with SEQ ID NO:31 or residues 22-235 of that sequence. In order to allow for allelic variants the examiner will allow claims drawn to 95% identity. The elected group in the restriction requirement is limited to SEQ ID NO:30 and 31.

Claims 102-105, 110-118, 123-131, 136-144, 149-153 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The instant specification does not teach the use of any and all cellulases from *Melanocarpus*, *Myriococcum* or *Chaetomium* but rather specific cellulases from these species. The restriction election was limited to the use

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of the cellulase of SEQ ID NO:31 or encoded by SEQ ID NO:30. There is not sufficient guidance given to enable one of ordinary skill in the art to make and/or use the invention within the scope of the instant claims.

Claims 31, 34, 49, 52, 68, 71, 85 and 88 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The instant claim requires the presence of a particular strain of organism, namely DSM 11024 and DSM 11-12. It is not clear that all of the requirements of 37 CFR 1.801-1.809 as to deposit conditions and availability upon issuance of a U.S. patent have been met. There is an indication that the strain has been deposited under the terms of the Budapest Treaty. However, as stated in MPEP 2410.01, "the mere indication that a deposit has been made under conditions prescribed by the Budapest Treaty would satisfy all conditions of these regulations except the requirement that all restrictions on access be removed on grant of the patent. *Ex parte Hildebrand*, 15 USPQ2d 1662 (Bd. Pat. App. & Int. 1990)". This assurance may be made by an averment by applicants' attorney.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 31, 36, 40-42, 45-49, 54, 58-59, 63-68, 73, 77-78, 82-85, 90, 94-95 and 99-101 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulein, et al. (AN6) as shown by the Schulein sequence search (U). The instant reference teaches a method of biostoning, biofinishing, treating wood-derived pulp and improving animal feed using an enzyme the is at least 80% identical with residues 22-235 of SEQ ID NO:31. See for example lines 10-22 of page 1; page 25, line 13 - page 26, line 3 and page 38, line 35 - page 40, line 2.

Claims 32, 35, 37-39, 50, 53, 55, 57, 69, 72, 74, 76, 86, 89, 91, 93, 106, 119, 132 and 145 are objected to as being dependent upon a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles L. Patterson, Jr., PhD, whose telephone number is 571-272-0936. The examiner can normally be reached on Monday - Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

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<http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles L. Patterson, Jr.
Primary Examiner
Art Unit 1652

Patterson
July 18, 2006